REMARKS

First, applicant and his attorney wish to thank the Examiner for the courtesy of the telephone interview of August 18, 2005.

In his Office action of July 28, 2005, the Examiner withdrew his indication of allowability of claims 2-6 and 20-24. Rather, the claims are rejected on the basis of the previously cited art and the newly cited references Sams Teach Yourself Microsoft Excel 2000 in 24 Hours, and Sams Teach Yourself Microsoft PowerPoint 2000 in 10 Minutes. Specifically, claims 1, 3-5, and 11-18 are now rejected under 35 USC §103(a) on the basis of the previously cited Wobben publication, the newly cited reference Sams Teach Yourself Microsoft Excel 2000 in 24 Hours, and the Cease et al. IEEE article Real-Time Monitoring of the TVA Power System. Claim 6 is rejected under 35 USC §103(a) on the basis of Wobben, Sams Teach Yourself Microsoft Excel 2000 in 24 Hours, the Cease et al. IEEE article, and the newly cited Sams Teach Yourself Microsoft PowerPoint 2000 in 10 Minutes. Claims 7-10, 19, 21-23, and 25-27 are rejected under 35 USC §103(a) on the basis of Wobben, Sams Teach Yourself Microsoft Excel 2000 in 24 Hours, the Cease et al. IEEE article, and further in view of the previously cited Bauer et al. patent. Claim 24 is rejected under 35 USC §103(a) on the basis of Wobben, Sams Teach Yourself Microsoft Excel 2000 in 24 Hours, the Cease et al. IEEE article, the Bauer et al. patent, and Sams Teach Yourself Microsoft PowerPoint 2000 in 10 Minutes. Finally, claim 28 is rejected under 35 USC §103(a) on the basis of Wobben and the Cease et al. IEEE article,

In this Office action response and pursuant to the discussion with the Examiner, Applicant's claims 1, 19, and 28 have been amended to better set forth Applicant's invention and distinguish it from the prior art.

With respect to the discussion and the claim amendments, Applicant previously noted that the term "line segment" is a common term within the electric industry. In particular, a series of electrically interconnected line segments comprise a section of the electrical distribution network. In his independent

method claims 1, 19, and 28 Applicant has amended the language to make it clear that interconnected line segments within a section are monitored with respect to a performance parameter or characteristic of the network. Each line segment is so monitored, and a three dimensional display is provided for an observer to readily view the information gathered for the section. In the display, one axis represents the interconnected line segments. A second axis represents the magnitude of the measured characteristic, and the third axis represents time.

Such a novel presentation allows an observer, for example, to observe momentary outages or "blinks" which occur throughout the section. If a tree limb, for example, is rubbing against a line, the blink count which occurs for that line segment and successive interconnected line segments will be greater than for those interconnected line segments ahead of the tree. This allows the observer to determine where within the network section to look for the cause of the problem. The advantage of Applicant's method over the prior is that it monitors the "health" of a series of interconnected segments, provides real-time information as to whether or not a segment is or is not supplying electricity, and provides sufficient historical information so the possibility of an imminent failure can be identified and a problem fixed before a power outage occurs.

None of the cited art, considered either singly or in combination, teach or suggest Applicant's method. The two newly cited Sams publication merely teach how to organize data on a spreadsheet or otherwise. There is no teaching or suggestion of the type of graphical display created by Applicant for mapping a section of a network and in particular interconnected line segments of the network, and including both the magnitude of a monitored performance characteristic and providing historical information about the segments, so one can ascertain if there is a problem, where the problem is, and its magnitude and extent.

With respect to the Wobben reference, it monitors separate installations of a system, not interconnected segments of a system. Importantly, there is no

teaching or suggestion of graphical display such as Applicant requires which combines both current and historical data about a particular performance parameter or characteristic not only for a single installation, over an interconnected portion or segment of the installation. Further, and as previously pointed out in the reply to the earlier Office action, another problem with Wobben is what happens if an "event" (such as a blink) is so brief that it is missed by a monitor. Applicant's amended claims address this problem by plotting historical data related to a line segment so an observer (person or computer) can readily make a judgment as to the significance of the data, quantify the magnitude of an event numerically; and, based on predetermined thresholds, determine what is significant for presentation to the network operator or manager.

With respect to the Cease et al. article, it discusses phasor measurement as part of real-time monitoring for a power system such as that operated by the TVA. Fig. 4 of the Cease et al. article is a three-dimensional power flow display in which sources and sinks in a power system are represented as rising and falling areas on the display.

With respect to Applicant's method as set forth in his independent claims 1, 19, and 28, Cease et al. is directed at individual points or nodes within the distribution network, not a series of interconnected points (i.e., line segments) which would extend between nodes. Information is collected only for the nodes. Accordingly, there is no way to determine what is happening between one node and another. This failure to provide an end-to-end monitoring and display capability makes it much for difficult, if not impossible, for an operator to do more than a "gross" analysis of the system whereas Applicant's method facilitates a much "finer" analysis that is more likely to uncover problems before they cause a failure. In addition, Applicant's method enables the user to pinpoint exact locations within a section where the problem has or may arise, rather than simply being able to say that it somewhere between node A and node B. In a power distribution system such as the TVA which large geographically and includes

large amounts of rugged terrain not easily reached, the ability of Applicant's method to identify, find and fix a problem has significant advantages over the phasor measurement methodology and mapping of Cease et al.

Based upon the foregoing, Applicant submits that his claims 1, 3-19, and 21-28 are allowable.

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Respectfully submitted,

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